

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical communication device, comprising:
a laser diode for emitting an optical transmission beam;
a reflective mirror adapted to reflect a first portion of the optical transmission beam to an end face of an optical fiber; and
a monitor photodetector, having a light receiving facet adapted to receive a second portion of the optical transmission beam, the monitor photodetector being configured such that the second portion of the optical transmission beam enters the light receiving facet of the monitor photodetector to be applied at a light detection area adjacent another facet of the monitor photodetector, the monitor photodetector being adapted to produce a control signal as a function of the received second portion of the optical transmission beam,
wherein the monitor photodetector is configured to receive the second portion of the optical transmission beam directly from the laser diode without the second portion passing through the reflective mirror.
2. (Original) The optical communication device of claim 1 further comprising a focusing lens optically coupled to the reflective mirror for focusing the reflected optical beam into the end face of the optical fiber.
3. (Original) The optical communication device of claim 1, wherein the laser diode comprises an edge emitting laser.

4. (Original) The optical communication device of claim 1, wherein the laser diode and the reflective mirror are coupled to a TO header, and wherein the reflective mirror is swept at an angle to reflect the first portion of the optical transmission beam to the optical fiber.

5. (Original) The optical communication device of claim 4 wherein the reflective mirror is swept an angle in the range of about 43-47 degrees relative to the TO header.

6. (Previously Presented) The optical communication device of claim 5 wherein the light receiving facet of the monitor photodetector is swept at an angle relative to the TO header.

7. (Previously Presented) The optical communication device of claim 1 further comprising a gain stage coupled to the monitor photodetector and adapted to convert the control signal to a voltage proportional to the intensity of the optical transmission beam and a control adapted to compare the voltage to a reference voltage and to adjust drive current of the laser diode in accordance with the comparison.

8. (Original) The optical communication device of claim 2, further comprising a laser diode isolator disposed between the focusing lens and the optical fiber.

9. (Original) The optical communication system of claim 1 wherein the monitor photodetector comprises a p-i-n photodetector.

10. (Original) The optical communication system of claim 1 wherein the monitor photodetector is coupled to the reflective mirror.

11. (Original) The optical communication system of claim 1 wherein the reflective mirror comprises a silicon reflective mirror.

12. (Currently Amended) A method for transmitting an optical signal, comprising:
emitting the optical signal;
reflecting a first portion of the optical signal to an end face of an optical fiber;
receiving a second portion of the optical signal on a light receiving facet of a monitor photodetector directly from the laser diode without the second portion of the optical signal passing through the reflective mirror, wherein the second portion of the optical signal enters the light receiving facet of the monitor photodetector and is applied at a light detection area adjacent another facet of the monitor photodetector; and
generating a control signal proportional to intensity of the optical signal as a function of the received second portion of the optical signal.

13. (Original) The method of claim 12 further comprising converting control signal to a voltage that is proportional to intensity of the optical signal and adjusting intensity of the optical signal in accordance with the voltage.

14. (Original) The method of claim 12 further comprising focusing the reflected optical signal into the end face of the optical fiber.

15. (Currently Amended) An optical communication device, comprising:
a laser diode for emitting an optical transmission beam from a first facet of the laser diode;
a reflective mirror adapted to reflect a first portion of the optical transmission beam emitted from the first facet of the laser diode to an end face of an optical fiber; and
a monitor photodetector, having a light receiving facet adapted to receive a second portion of the optical transmission beam emitted from the first facet of the laser diode, the monitor photodetector being configured such that the second portion of the optical transmission beam enters the light receiving facet of the monitor photodetector to be applied at a light detection area adjacent another facet of the monitor photodetector, wherein the monitor

photodetector is configured to receive the second portion of the optical transmission beam directly from the laser diode without the second portion passing through the reflective mirror, and wherein the monitor photodetector is adapted to produce a control signal as a function of the received second portion of the optical transmission beam.

16. (Original) The optical communication device of claim 15 further comprising a focusing lens optically coupled to the reflective mirror for focusing the reflected optical beam into the end face of the optical fiber.

17. (Original) The optical communication device of claim 15, wherein the laser diode comprises an edge emitting laser.

18. (Original) The optical communication device of claim 15, wherein the laser diode and the reflective mirror are coupled to a TO header, and wherein the reflective mirror is swept at an angle to reflect the first portion of the optical transmission beam to the optical fiber.

19. (Original) The optical communication device of claim 18 wherein the reflective mirror is swept an angle in the range of about 43-47 degrees relative to the TO header.

20. (Previously Presented) The optical communication device of claim 18 wherein the light receiving facet of the monitor photodetector is swept at an angle relative to the TO header.

21. (Previously Presented) The optical communication device of claim 15 further comprising a gain stage coupled to the monitor photodetector and adapted to convert the control signal to a voltage proportional to the intensity of the optical transmission beam and a control adapted to compare the voltage to a reference voltage and to adjust drive current of the laser diode in accordance with the comparison.

Appln No. 10/628,026
Amdt date May 25, 2007
Reply to Office action of April 5, 2007

22. (Original) The optical communication device of claim 16, further comprising a laser diode isolator disposed between the focusing lens and the optical fiber.

23. (Original) The optical communication system of claim 15 wherein the monitor photodetector comprises a p-i-n photodetector.

24. (Original) The optical communication system of claim 15 wherein the reflective mirror comprises a silicon reflective mirror.

25. (Cancelled)